CLAIMS

1. A system for separating shredded vegetable pieces comprising:

a) a slicer configured to cut a vegetable having a leaf portion and a core portion into a plurality of pieces of the leaf and core portions to form a mixture of leaf pieces and core pieces; and

b) a sorting mechanism having an infeed end and a discharge end, and being adapted to separate core pieces from the mixture.

2. The system of claim 1 wherein the sorting mechanism comprises one or more screens having a plurality of screen apertures, wherein the plurality of screen apertures have a shape and a size suitable for separating shredded vegetable pieces of various dimensions.

3. The system of claim 2 wherein the plurality of screen apertures are rectangular in shape.

4. The system of claim 3 wherein the rectangular apertures measure about 2.5 cm (about 1 inch) in length to about 1.6 cm (about 5/8 inch) in width.

5. The system of claim 1 wherein the sorting mechanism comprises a series of screens having a plurality of apertures between the infeed end and the discharge end, and wherein the apertures of one or more screens differ in shape and size from the apertures of other screens in the series.

6. The system of claim 1 further comprising a feed shaker that transports the mixture from the slicer to the sorting mechanism.

7. The system of claim 6 wherein the feed shaker is configured to vibrate to facilitate uniform distribution of the mixture on the feed shaker.

8. The system of claim 7 wherein the feed shaker is configured to vibrate to further facilitate uniform distribution of the mixture on the sorting mechanism.

9. The system of claim 6 wherein the feed shaker includes an end, and wherein the end of the feed shaker and the sorting mechanism form a non-bias feed arrangement, and wherein the mixture is transported from the feed shaker onto the sorting mechanism through the end of the feed shaker.

10. The system of claim 6 wherein the feed shaker includes an end, and wherein the end of the feed shaker and the sorting mechanism form a bias angle, and wherein the mixture is transported from the feed shaker onto the sorting mechanism through the end of the feed shaker.

11. The system of claim 10 wherein the bias angle is between about 0° to about 90°.

12. The system of claim 10 wherein the bias angle is between about 45° to about 90°.

13. The system of claim 10 wherein the bias angle is greater than 90°.

14. The system of claim 1 wherein the vegetable is a cabbage.

15. A system for separating shredded vegetable pieces comprising:

a) a slicer configured to cut a vegetable having a leaf portion and a core portion into a plurality of leaf pieces and core pieces to form a mixture of leaf and core pieces;

b) a sorting mechanism adapted to separate core pieces from the mixture; and

c) a feed shaker that transports the mixture from the slicer to the sorting mechanism.

16. A mechanical method for separating shredded vegetable pieces comprising:

a) providing a vegetable having a leaf portion and a core portion;

b) cutting the leaf and core portions into a plurality of leaf pieces and core pieces to form a mixture of leaf and core pieces; and

c) separating core pieces from the mixture after cutting the leaf and core portions.

17. The mechanical method of claim 16 further comprising the step of feeding the mixture to a sorting mechanism having an infeed end and a discharge end, and one or more screens.

18. The mechanical method of claim 17 wherein the one or more screens have a plurality of screen apertures, wherein the plurality of screen apertures have a shape and a size suitable for separating shredded vegetable pieces of various dimensions.

19. The mechanical method of claim 18 wherein the plurality of screen apertures are rectangular in shape.

20. The mechanical method of claim 19 wherein the rectangular apertures measure about 2.5 cm (about 1 inch) in length to about 1.6 cm (about 5/8 inch) in width.

21. The mechanical method of claim 17 wherein the sorting mechanism comprises a series of screens having a plurality of apertures between the infeed end and the discharge end, and wherein the apertures of one or more screens differ in shape and size from the apertures of other screens in the series.

22. The mechanical method of claim 16 wherein the step of separating comprises passing leaf pieces through the apertures into a collection pan, and thereafter, into a first tank, and channeling core pieces that remain on the one or more screens to a second tank.

23. The mechanical method of claim 16 further comprising the step of packaging the mixture without the core pieces.

24. The mechanical method of claim 16 wherein the vegetable is a cabbage.